

U.S. Patent Application Serial No. 10/660,761  
Response filed November 1, 2005  
Reply to OA dated August 8, 2005

**REMARKS**

Claims 1-8 are pending in this application. No amendment is made in this Response. It is believed that this Response is fully responsive to the Office Action dated **August 8, 2005**.

**Claims 1-5 and 7 are rejected under 35 U.S.C. §102(b) as being anticipated by Neubauer et al. (U.S. Patent No. 5,328,797). (Office Action paragraph no. 2)**

The rejection of claims 1-5 and 7 under 35 U.S.C. 102(b) is respectfully traversed, and reconsideration of the rejection is requested.

In the Response dated May 19, 2005, Applicant responded to the Examiner's previous assertion that the contact angles of claim 1 are inherent based on Neubauer, because Neubauer's layer "comprises a copolymer exemplified by Applicant." In traversing this rejection, Applicant argued that Neubauer's composition is **not** the same as that used in the present specification, and therefore the Examiner had not provided a proper basis for the rejection.

Applicant notes that in the present Office action, the Examiner has repeated the inherency rejection, but has not responded to Applicant's arguments regarding the difference in the compositions of Neubauer and the present specification, which support Applicant's contention that no basis in fact and/or technical reasoning has been provided for the rejection (see MPEP 2112). Applicant therefore maintains the position that the inherency rejection is improper.

Moreover, to further support Applicant's position that the limitations of the present claims are not inherent in Neubauer, Applicant has obtained data on the layers of Neubauer, these data being

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presented in the attached Declaration under 37 CFR 1.132 by Yasuyuki Watanabe. Applicant submits that these data clearly demonstrate that the limitations of claim 1 are not inherent in Neubauer.

The Declaration demonstrates that the layers of Neubauer do not inherently meet the limitations of the contact angles in the present claims. The balance between hydrophilicity and hydrophobicity of the alkali-soluble polymer can be determined by a contact angle of the surface of the heat-sensitive layer with water. When the contact angle of layers differs, this means the properties of the polymers and the layers inherently differ. Accordingly, the fact that Neubauer's compositions do not meet the limitations of claim 1 means that Neubauer's compositions are different from those of claim 1.

Applicant notes that it was impossible to exactly reproduce the layers of Examples 4 and 5 of Neubauer as Comparative Examples 1 and 2 of the Declaration, since the compounds used in Neubauer are unavailable on the market, as discussed on page 2 of the Declaration. The layers in the Comparative Examples in the Declaration are of similar composition to the Examples of Neubauer. For example, the differences between Comparative Example 1 in the Declaration and Example 4 of Neubauer include use of 9-methylacridine instead of 9-phenyl acridine, and 2-methoxyphenyl-4,6-bis-trichloromethyl-s-triazine instead of 2,4-bis-trichloromethyl-6-(4-styrylphenyl)-2-triazine. The effect of not being able to use the identical compounds on the obtained results is discussed below.

There is a possibility of there being a difference in the advancing contact angle between the

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Comparative Examples and the compositions of Neubauer, since the components of Comparative Examples in Declaration differ from those of Examples 4 and 5 of Neubauer, although the changes in hydrophilicity and hydrophobicity of the layer are only slight.

However, the value of the difference in receding contact angle before and after heating ( $\theta^{b2} - \theta^{b1}$ ) of Comparative Examples in Declaration is considered to be almost the same as that of Examples 4 and 5 of Neubauer since the difference in receding contact angle before and after heating ( $\theta^{b2} - \theta^{b1}$ ) changes only when the hydrophobicity or the smoothness of the surface of layer changes. There is no effect to change the hydrophobicity or the smoothness using the substituted compounds or the compound which were not used in the Comparative Examples in Declaration. (See page 20, line 24, to page 23, line 7, of the present specification.)

Therefore, Applicant submits that the results of the difference in receding contact angle before and after heating ( $\theta^{b2} - \theta^{b1}$ ) on the layers of Comparative Examples 1 and 2 in Declaration should be almost the same as those on the Examples 4 and 5 of Neubauer.

The comparative results of the contact angles of layers of Neubauer, Comparative Examples 1 and 2, and the present invention are shown in the attached Declaration. Comparative Examples 1 and 2 of Declaration correspond to Example 4 and 5 of Neubauer, respectively.

As can be seen in the Results on page 4 and the Table on page 5 of the Declaration, in Comparative Example 1, the advancing contact angle ( $\theta^a$ ) before heating was  $73.3^\circ$  and the receding contact angle ( $\theta^{b1}$ ) was  $56.4^\circ$ , while the receding contact angle ( $\theta^{b2}$ ) after heating was  $56.1^\circ$ , which was **less** than the receding contact angle ( $\theta^{b1}$ ) before heating. The difference in receding contact

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angle before and after heating ( $\theta^{b2} - \theta^{b1}$ ) in Comparative Example 1 was  $-0.3^\circ$ . This value is smaller than  $1^\circ$ . Comparative Example 1 therefore this does not meet the limitations of claim 1 requiring that receding contact angle after heating be larger than receding contact angle before heating, and the difference be larger than  $1^\circ$ .

In comparative Example 2, the advancing contact angle ( $\theta^f$ ) before heating was  $86.9^\circ$  and the receding contact angle ( $\theta^{b1}$ ) was  $52.0^\circ$ , while the receding contact angle ( $\theta^{b2}$ ) after heating was  $51.8^\circ$ , which was less than the receding contact angle ( $\theta^{b1}$ ) before heating. The difference in receding contact angle before and after heating ( $\theta^{b2} - \theta^{b1}$ ) in Comparative Examples 2 was  $-0.2^\circ$ , which is smaller than  $1^\circ$ . As with Comparative Example 1, Comparative Example 2 does not meet the limitations of claim 1 requiring that receding contact angle after heating be larger than receding contact angle before heating, and the difference be larger than  $1^\circ$ .

Therefore, both Comparative Examples 1 and 2 of the Declaration fail to meet the limitations of claim 1. The advancing contact angles ( $\theta^f$ ) of Comparative Examples 1 and 2 of Declaration are between  $70^\circ$  and  $110^\circ$  and the difference in receding contact angles before and after heating ( $\theta^{b2} - \theta^{b1}$ ) of Comparative Examples 1 and 2 of Declaration are smaller than  $1^\circ$ , as in Comparative Examples 1 and 5 in the present specification.

These results clearly demonstrate that layers made according to the teachings of Neubauer do **not** inherently meet the limitations of the present claims, and are inherently chemically different from those of the present claims.

Moreover, the results in the Declaration show that these layers of Neubauer are inferior to

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those of the present invention. Based on the recited contact angle limitations, the present invention can provide a negative-working CTP plate with superior resolution and printing resistance of the image area of a press plate, which is obtained by forming a latent image on a heat-sensitive layer in a heat-sensitive lithographic printing plate using heat generated upon irradiation with laser light, and developing the heat-sensitive layer using an alkaline developing solution. Applicant submits that there is no suggestion in Neubauer for the chemical compositions of the layers of the present claims, nor for layers meeting the contact angle limitations of the present claims. Claims 1-5 and 7 are not anticipated by, and are not obvious over Neubauer.

**Claims 6 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. (Office Action paragraph no.3)**

The objection to claims 6 and 8 is respectfully traversed. Applicant has traversed the rejection of the base claim 1 and intervening claim 3, as discussed above.

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If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

Attachment: Declaration under 37 CFR 1.132 by Yasuyuki Watanabe (6 pages)

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